

*** NETANSWERS INTERNET EXTRA ***

*** Number 44: Does anybody really know what time it is? ***

Every moment that you're staring at your computer screen, that clock is staring back. Sometimes it's in the taskbar (if you use Windows) or it's in the menu bar (on the Mac). If you have a screensaver, maybe a quaint analog clock floats around your screen to pass the time.

Besides simply being informative, your computer's clock plays important roles in how the system functions. For instance, every file on your hard drive is stamped with the time it was created and the time it was last changed. When you send e-mail, your messages are stamped with the time. To your computer, time is of the essence.

So doesn't it make sense to make sure that clock is accurate? Sure, you could set your computer's clock by looking at the position of the sun, glancing at your watch, or calling the Time Lady. None of those are guaranteed to give you the correct time. Keeping your computer on time is easy to do with the Internet and a Network Time Protocol client... and a little help from an atomic clock.

Network Time Protocol (NTP) is an age-old Internet protocol used to synchronize the time on one computer with another computer. Scattered around the Internet are NTP servers, computers that tell the correct time to anyone who wants it. In fact, some NTP servers are attached to atomic clocks. By pointing an NTP client to one of those servers, it's simple to assure that your computer's clock is absolutely correct -- give or take a millisecond or two.

All you need to do is download and install an NTP client. There are several of them out there, but for my money, the two best are AtomTime98 (for Windows) and Vryema (for the Mac.)

AtomTime98 is a 32-bit Windows application. It fetches the current time from an atomic clock server in Boulder, Colorado. It compares that time to the your PC's clock. You can then opt to synch your computer's clock with the NTP server. AtomTime is shareware, \$10. and available from <http://www.atomtime.com>. Vryema works much the same way: it quietly checks with an atomic NTP server and corrects your Mac's clock. Vryema is free software. It is available from <http://www.lava.net/~kirill/software/vremya.html>

You can use your NTP client to set your computer's time just once, and it will be accurate for a while, but chances are that its clock keeps time a little fast or a little slow. It's just as easy to keep your computer's clock in sync by updating the time regularly. You can set AtomTime to synch your PC's to the time server every 12 hours (or more often if you're a little too serious about your clock's accuracy.) If you use a Mac, you might put Vryema in your Startup Items folder to synch the Mac's clock each time it boots. If you happen to manage a whole fleet of computers -- for instance, a computer lab -- installing an NTP client on all of them can make your job a little easier.

More information about NTP is available at <http://www.eecis.udel.edu/~ntp/>

As long as you're killing time (ha), you might want to check out these related web sites:

The Directorate of Time, located at the U.S. Naval Observatory in Washington, DC (the official source of time used in the United States). This site tells about the upcoming "leap second" on December 31, 1998 and offers interesting info about atomic and other highly accurate clocks. It's at <http://tycho.usno.navy.mil/time.html>

Internet Resources regarding horology (the science of timekeeping): <http://www.horology.com/horology/>

Finally, for something completely different (and yet still discussing time) Shakespeare's Sonnet XII: <http://the-tech.mit.edu/Shakespeare/Poetry/sonnet.XII.html>

=*=*= SITES MENTIONED IN THIS ISSUE =*=*=

AtomTime (Windows): <http://www.atomtime.com>

Vryema (Mac): <http://www.lava.net/~kirill/software/vremya.html>

Information about NTP: <http://www.eecis.udel.edu/~ntp/>

The Directorate of Time: <http://tycho.usno.navy.mil/time.html>

Horology: <http://www.horology.com/horology/>

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The NetAnswers Internet Extra is free to all CompuServe members. It's available in the Internet New Users Forum (GO INETNEW) in file library 11, "NetAnswers".

Got comments or ideas for future issues? We want to hear 'em. Just send a message to savetz@compuserve.com (74774,2725).

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